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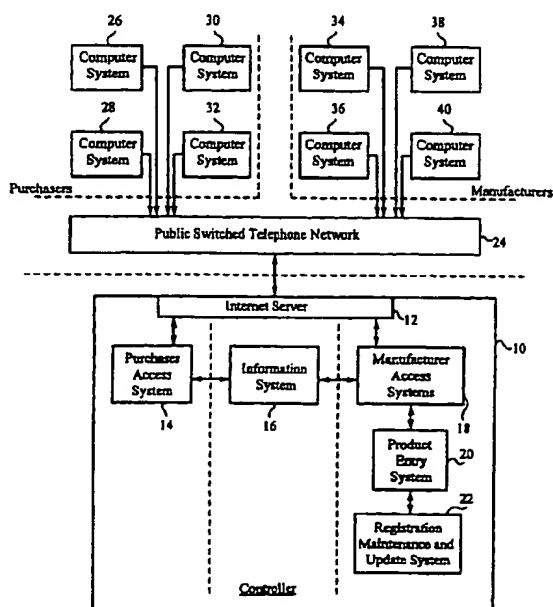
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(54) Title: METHOD OF AND APPARATUS FOR IDENTIFYING PRODUCTS AND PROVIDING RELEVANT INFORMATION ABOUT PRODUCTS THROUGH A PRODUCT TAG PLACED ON THE PRODUCTS WITH A REFERENCE TO THE LOCATION OF THE INFORMATION



(57) Abstract: A product tag of the present invention is permanently fixed to a product or information about a service and preferably includes information about the manufacturer, an internet address at which the product is available, and a unique product tag number. The unique product tag number is provided by a Product Entry System (20) when the manufacturer registers the product, via Manufacturing Access System (18), and provides information about the product to a Product Information Controller (16). Purchasers access the product information controller through a Purchaser Access System (14) and registers as the product purchase by entering the product tag number. The purchaser then obtains information relevant to the product. The information includes the information such as the user manual, warranty, repairs, supplies or replacement parts, upgrades or recalls, sale and availability of associated products.

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**METHOD OF AND APPARATUS FOR IDENTIFYING PRODUCTS
AND PROVIDING RELEVANT INFORMATION ABOUT PRODUCTS
THROUGH A PRODUCT TAG PLACED ON THE PRODUCTS WITH A
REFERENCE TO THE LOCATION OF THE INFORMATION**

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RELATED APPLICATIONS:

This application claims priority under 35 U.S.C. § 119(e) of the co-pending U.S. provisional application Serial Number 60/148,607 filed on August 11, 1999 and entitled "IDENTIFICATION AND INFORMATION SYSTEM TO ADD RELEVANT
10 INFORMATION TO PRODUCTS THROUGH THE USE OF A TAG WHICH IS PLACED ON THE PRODUCT AND IDENTIFIES WHERE TO FIND THE INFORMATION ON THE INTERNET." The provisional application Serial Number 60/148,607 filed on August 11, 1999 and entitled "IDENTIFICATION AND INFORMATION SYSTEM TO ADD
15 RELEVANT INFORMATION TO PRODUCTS THROUGH THE USE OF A TAG WHICH IS PLACED ON THE PRODUCT AND IDENTIFIES WHERE TO FIND THE INFORMATION ON THE INTERNET" is also hereby incorporated by reference.

FIELD OF THE INVENTION:

The present invention relates to the field of providing relevant information
20 corresponding to products and/or services. More particularly, the present invention relates to the field of providing relevant information corresponding to products and/or services which is accessible electronically.

BACKGROUND OF THE INVENTION:

25 The World Wide Web (also known as and hereinafter referred to as the "Internet") is a rapidly expanding network of computers which provide users with numerous services and a wealth of information. The internet is primarily a visually based system, allowing a user to graphically interact with an image or series of images on a display screen.

The internet was originally created as a non-commercial venue to provide
30 communication links between government institutions as well as institutions of higher learning. Today, the internet has evolved to become a universal network of computers which include private industry as well as government institutions. The internet has become widely accessible to many people from computers located in many different places including homes and offices. Users are able to locate updated information regarding the weather, stock prices,
35 news and many other topics. Further, users are able to locate a wide variety of information regarding products and services. Users are also able to communicate with other users over the internet through e-mail, bulletin boards, message lists and chat sites.

The internet offers many advantages over other media. The internet seamlessly links together and provides to users information stored on geographically distant servers. Similarly, the information on a server can be remotely updated from any geographic point from which access to the internet can be obtained.

5 When a user accesses information on a server over the internet, the user interfaces with the server through a website. Many websites offer hyperlinks to other websites, making the internet user friendly and allowing users to efficiently jump between websites and webpages. When accessing a website with a hyperlink to another website, by selecting the hyperlink, the user is enabled to link directly from the current website to the linked website without entering
10 an address of the linked website. In use, a hyperlink is a visually discernible notation. The user activates or selects the hyperlink by "clicking" on the hyperlink notation or icon. This selection of the hyperlink is also referred to as a point and click operation. The user's computer is programmed to automatically access the website identified by the hyperlink as a result of the user's point and click operation.

15 When accessing an internet site, a user instructs a computer system, settop box or other internet access device to dial up the server of the user's internet service provider. The internet access device then controls the operation of a modem to establish the connection with the internet service provider over the public switched telephone network. Once a connection has been made between the modem and the internet service provider, the user must then log on to
20 the service, usually by entering a username and a password. When the user is logged on to the service, the user can then access services and information provided by the service provider and also information available through web pages at other addresses on the internet. When accessing information available over the internet, the user connects through their service provider to other servers which are providing information. This information is usually
25 provided at internet sites and web pages. Each internet site and web page has a particular address through which it can be accessed. By entering this address, the user is instructing their internet service provider to connect them to that address. As described above, the user also instructs their internet service provider to connect them to a specific address by selecting a hyperlink through a point and click operation.

30 When selling a product, a manufacturer generally provides a manual with the product which explains the assembly, operation and care of the product to the purchaser. Typically, this manual is a printed booklet which is shipped with the product. Occasionally, with a computer or software product, the manual is provided electronically with the product. The manual is oftentimes lost or misplaced by the purchaser of a product after the purchaser of the
35 product has owned the product for a period of time. This makes it difficult for the purchaser of the product to refer to the manual for routine maintenance, upkeep and care which is

necessary over the lifetime of the product. Further, manufacturers occasionally update their product manuals, as new information is learned about the product or enhancements are made to the product.

5 Manufacturers also typically include a registration card with a product which allows the purchaser of the product to register their purchase with the manufacturer. The registration card asks for certain relevant information about the purchaser and their purchase of the product. When sent in to the manufacturer, the registration card allows a purchaser to register with the manufacturer and generally activates the warranty of the product. By registering with a manufacturer, the manufacturer can then keep the purchaser updated on relevant information
10 about the product including recalls, updates, new models of the product, other similar or compatible products and other information relevant to the product. However, purchasers of products do not always send in the registration card after purchasing a product. If the registration card is not sent in to the manufacturer, then the manufacturer generally has no way of knowing who has purchased and owns a particular product. This makes it difficult to notify
15 unregistered purchasers about recalls, updates and new models of the product.

Information about products is currently available on the internet. However, this information is not always easily accessible by a purchaser of a product. Either the purchaser of the product knows the location of the information or has to go through what can be a cumbersome and time consuming search for the information. There is currently no centralized
20 location at which to find information about specific products.

SUMMARY OF THE INVENTION:

A product tag of the present invention is permanently affixed to a product or information about a service and preferably includes information about the manufacturer, an
25 internet address at which information about the product is available, as well as a unique product tag number. The unique product tag number is provided by a product entry system when the manufacturer registers the product and provides information relevant to the product to a product information controller. Purchasers of the product access the product information controller through a purchaser access system and register as a purchaser of the product by
30 entering the product tag number. The registered purchaser is then able to obtain information relevant to the product. The information available to the purchaser includes information such as the user manual, warranty information, information about repairs of the product, supplies or replacement parts for the product, upgrades or recalls of the product and about the sale and availability of associated products. When information about the product is updated, the
35 registered purchasers of the product are preferably automatically notified of the updated information.

In one aspect of the present invention, a method of obtaining information about a product comprises obtaining a product number from a product number tag associated with the

product, entering the product number into an information system, wherein the information system maintains information corresponding to the product by the product number and obtaining the information from the information system. The method further comprises registering the product with a product entry system to obtain the product number. The method
5 further comprises affixing the product number to the product. Each type of product is assigned a unique product number. The information is selected from the group of user manual, warranty information, information about repairs of the product, information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sale and availability of associated products and
10 information about routine maintenance of the product. The product number tag includes the product number, information about a manufacturer of the product and an address of the information system. The information system preferably includes a server on which the information is maintained. The method further comprises establishing an internet connection with the server to enter the product number and to obtain the information from the information
15 system. The method further comprises notifying users who have entered the product number into the information system about updates to the information.

In another aspect of the present invention, a method of maintaining a list of registered purchasers of a product and providing information corresponding to a product comprises entering a product into a product entry system to obtain a product number, affixing the
20 product number to the product, maintaining information corresponding to the product within an information system indexed by the product number and providing the information to purchasers of the product who enter the product number into the information system. Each type of product is assigned a unique product number. The information is selected from the group of user manual, warranty information, information about repairs of the product,
25 information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sale and availability of associated products and information about routine maintenance of the product. The product number is affixed to the product by a product number tag. The product number tag includes the product number, information about the manufacturer and an address of the information
30 system. The information system includes a server on which the information is maintained. The method further comprises establishing an internet connection with the server to enter the product number and to obtain the information from the information system. The method further comprises registering purchasers of the product with the information system, thereby forming registered purchasers. The method further comprises notifying the registered
35 purchasers about updates to the information.

In yet another aspect of the present invention, a product information system comprises means for interfacing with a user, means for maintaining information about a product, wherein the information is maintained in correspondence to a product number which is associated with the product and means for providing coupled to the means for interfacing and to the means for maintaining for providing the information to the user when the user enters the product number. A manufacturer of the product registers the product with the means for maintaining information about the product to obtain the product number. The product information system further comprises a product tag affixed to the product which includes the product number. Each type of product is assigned a unique product number. The information is selected from the group of user manual, warranty information, information about repairs of the product, information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sales and availability of associated products and information about routine maintenance of the product. The product tag further includes information about the manufacturer and an address by which the means for maintaining information is accessed. The means for maintaining information is included within a server. A connection is established with the server by a computer system to access the information from the means for maintaining information. The connection is established between the computer system and the server over the internet. The user registers with the means for providing by entering the product number and further wherein the means for providing automatically notifies registered users of updates to the information.

In still yet another aspect of the present invention, a product information system comprises an interface circuit configured to establish a connection with a remote computer system and an information system coupled to the interface circuit for maintaining information about a product in correspondence to a product number which is associated with the product and providing the information to the remote computer system if the product number is entered by the remote computer system. A manufacturer of the product registers the product with the information system and provides the information to the information system to obtain the product number. The product information system further comprises a product tag affixed to the product which includes the product number. Each type of product is assigned a unique product number. The information is selected from the group of user manual, warranty information, information about repairs of the product, information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sales and availability of associated products and information about routine maintenance of the product. The product tag further includes information about the manufacturer and an address by which the information system is accessed. The information system is included within a server. The connection is established with the server by the remote computer system through the interface circuit. The connection is established between the server and the remote computer over the internet. A user of the remote computer system

registers with the information system by entering the product number and further wherein the information system automatically notifies registered users of updates to the information.

In yet another aspect of the present invention, a network of devices for maintaining and obtaining information about a product comprises one or more computer systems configured to communicate with other systems and a product information server configured to couple to the one or more computer systems for obtaining, maintaining and providing information about a product in correspondence to a product number which is associated with the product, wherein the information is provided to a particular one of the one or more computer systems if the product number is entered by the particular one of the computer systems. A manufacturer registers the product with the product information server and provides the information to the product information server to obtain the product number. The network of devices further comprises a product tag affixed to the product which includes the product number. Each type of product is assigned a unique product number. The product tag further includes information about the manufacturer and an address by which the product information server is accessed. The information is selected from the group of user manual, warranty information, information about repairs of the product, information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sales and availability of associated products and information about routine maintenance of the product. The one or more computer systems are coupled to the server over the internet. A user of the particular one of the computer systems registers with the product information server by entering the product number and further wherein the product information server automatically notifies registered users of updates to the information.

In still yet another aspect of the present invention, a product tag for affixing to a product comprises a product number by which the product is identified and an address of a product information server from which information about the product is provided to users who enter the product number. The product tag further comprises information about a manufacturer of the product. A user registers with the product information server by entering the product number and further wherein the product information server automatically notifies registered users of updates to the information. The information is selected from the group of user manual, warranty information, information about repairs of the product, information about replacement parts for the product, information about upgrades of the product, information about recalls of the product, information about sales and availability of associated products and information about routine maintenance of the product.

BRIEF DESCRIPTION OF THE DRAWINGS:

Figure 1 illustrates a block diagram of a product information providing system according to the preferred embodiment of the present invention.

Figure 2 illustrates a block diagram of the internal components of the computer systems used to access the product information providing system of the preferred embodiment of the present invention.

Figure 3 illustrates a flowchart showing the process used when a manufacturer
5 accesses the manufacturer access system of the present invention.

Figure 4 illustrates a flowchart showing the process used when a purchaser accesses the purchaser access system of the present invention.

Figure 5 illustrates a product tag of the preferred embodiment of the present invention.

10 DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT:

A product tag of the present invention is permanently affixed to a product or information about a service. The product tag preferably includes information about the manufacturer, an internet address at which information about the product is available, as well as a unique product tag number. The unique product tag number is provided by a product
15 entry system.

The manufacturer of a product accesses the product entry system through a manufacturer access system and registers a new product with the product entry system. The product entry system then assigns the new product a unique product tag number. The manufacturer includes this product tag number on the product tag and affixes the product tag
20 to the product. The product tag can be affixed to the product in any appropriate manner including by glue, rivets and by imprinting the product tag on the product or including the product tag within the mold used to make the product. When registering the new product with the product entry system, the manufacturer also provides information and/or links to information corresponding to the product. This information includes information such as the
25 user manual, warranty information, information about repairs of the product, information about supplies or replacement parts for the product, information about upgrades or recalls of the product and information about the sale and availability of associated or complementary products.

Purchasers of the product access this information by registering as a purchaser of the product with a purchaser access system. The purchaser of the product registers as such by
30 entering the product tag number appearing on the product tag of the product into the purchaser access system. The purchaser is then able to obtain the information maintained on the product. Also, as a registered purchaser of the product, when information about the product is changed or updated, the purchaser can be automatically notified of the updated information for
35 products for which they are registered. This can include reminding the purchaser about the expiration of warranties or service contracts, the need to schedule routine maintenance, or notifying the registered purchaser of product recalls, upgrades and the like. Through the

purchaser access system, the registered purchaser can also maintain an inventory of registered products which they own.

A block diagram of a product information providing system according to the preferred embodiment of the present invention is illustrated in Figure 1. A product information controller 10 includes an internet server 12, a purchaser access system 14, a manufacturer access system 18 and an information system 16. The purchaser access system 14 is coupled to the internet server 12 and to the information system 16 to control communications between the product information controller 10 and purchasers accessing the product information providing system. As used herein, purchasers are users of the product information providing system which access the product information controller 10 to obtain information about a products or services or to register with a manufacturer of a product or provider of a service. Further, as used herein, the term product is used to refer to both products and services.

The manufacturer access system 18 is coupled to the internet server 12 and to the information system 16 to control communications between the product information controller 10 and manufacturers of products. As used herein, manufacturers are manufacturers or vendors of products, including distributors and retailers, which access the product information controller 10 to provide and/or update information about a product which includes a product tag according to the present invention and to obtain information about purchasers of a product which includes a product tag according to the present invention. The manufacturer access system 18 includes a product entry system 20 and a registration maintenance and update system 22. The information system 16 is accessed by both purchasers and manufacturers to obtain and provide information relative to a product or products.

The product information controller 10 is coupled to the public switched telephone network 24 to allow communications between both the internet server 12 and the purchaser's computer systems 26-32 and the manufacturer's computer systems 34-40. Using the computer systems 26-32, purchasers establish a connection with the purchaser access system 14 to obtain, view and download information about a product, as well as to register with a manufacturer of a particular product. Preferably, this connection is established between the purchasers' computer systems 26-32 and the product information controller 10 over the internet through the public switched telephone network 24. Alternatively, this connection is established by any appropriate connection including a direct connection over the public switched telephone network 24. Using the computer systems 34-40, manufacturers establish a connection with the manufacturer access system 18 to provide information about products and to obtain information about registered purchasers of products. Preferably, this connection is established between the manufacturers' computer systems 34-40 and the product information controller 10 over the internet through the public switched telephone network 24. Alternatively, this connection is established by any appropriate connection including a direct connection over the public switched telephone network 24.

A block diagram of the internal components of the computer systems 26-40 used by purchasers and manufacturers to access the product information controller 10 of the present invention is illustrated in Figure 2. While the product information controller 10 can be accessed from any appropriately configured computer system or internet access device, an exemplary computer system 50 for accessing the product information controller 10 is illustrated in Figure 2. The exemplary computer system 50 includes a CPU 72, a main memory 56, a video memory 60, a mass storage device 54 and a modem 52, all coupled together by a conventional bidirectional system bus 58. The modem 52 is preferably coupled to the public switched telephone network 24 for sending and receiving communications. The mass storage device 54 may include both fixed and removable media using any one or more of magnetic, optical or magneto-optical storage technology or any other available mass storage technology. The system bus 58 contains an address bus for addressing any portion of the memory 54, 56 and 60. The system bus 58 also includes a data bus for transferring data between and among the CPU 72, the main memory 56, the video memory 60, the mass storage device 54 and the modem 52.

The computer system 50 is also coupled to a number of peripheral input and output devices including the keyboard 68, the mouse 70 and the associated display 66. The keyboard 68 is coupled to the CPU 72 for allowing a user to input data and control commands into the computer system 50. A conventional mouse 70 is coupled to the keyboard 68 or computer system 50, directly, for manipulating graphic images on the display 66 as a cursor control device in a conventional manner. The display 66 displays video and graphical images generated by the computer system 50.

A port of the video memory 60 is coupled to a video multiplex and shifter circuit 62, which in turn is coupled to a video amplifier 64. The video amplifier 64 drives the display 66, when it is being used. The video multiplex and shifter circuitry 62 and the video amplifier 64 convert pixel data stored in the video memory 60 to raster signals suitable for use by the display 66.

A flowchart illustrating the process used when a manufacturer is providing and updating information about a product with a product tag according to the present invention, is illustrated in Figure 3. It should be understood that a manufacturer as used herein, includes manufacturers and vendors of products, including distributors and retailers, and also includes any person or entity providing a product or service to which they have assigned a product tag number and for which they would like to post or provide information on the product information controller 10. The process of Figure 3 starts at the step 100. At the step 102 it is determined if the manufacturer currently accessing the manufacturer access system 18 is registered with the manufacturer access system 18. If the manufacturer is not yet registered with the manufacturer access system 18, then the manufacturer is registered at the step 104, by entering registration information such as name, address, contact information and types of

products/services that the manufacturer carries or provides. Once the manufacturer is registered with the manufacturer access system 18, then it is determined at the step 106 if the product for which the manufacturer is accessing the manufacturer access system 18 is registered and has been assigned a product tag number. If the product has not yet been
5 assigned a product tag number, then the manufacturer enters information about the product to the product entry system 20 at the step 108. The product entry system 20 then assigns a unique product tag number to the manufacturer for the product at the step 110. At the step 112, the manufacturer then enters the information, including links to other internet pages, to be available to purchasers of the product accessing the information system 16. This
10 information provided by the manufacturer includes information or links to information such as the user manual, warranty information, information about repairs of the product, information about supplies or replacement parts for the product, information about upgrades or recalls of the product and information about the sale and availability of associated products.

Once the product has an associated assigned product tag number, it is then determined
15 at the step 114, if the information associated with the product needs to be updated. If it is determined that the information associated with the product does not need to be updated, then the manufacturer access process ends at the step 124. Otherwise, if it is determined that the information associated with the product does need to be updated, then the assigned product tag number of the product is entered at the step 116. At the step 118, the relevant information is
20 updated by the manufacturer and updated in the information system 16. At the step 120, it is then determined if the registered purchasers associated with this product should be automatically informed that the information for this product has been updated. If it is determined that the registered purchasers associated with this product should be informed of the updated information, then at the step 122, the registered purchasers associated with this
25 product are automatically informed that the information for this product has been updated. As part of this step of informing the registered purchasers, the registered purchasers are also provided with a link to the updated information. If it is determined at the step 120 that the registered purchasers associated with this product should not be informed of the updated information or after the registered purchasers have been informed of the updated information
30 at the step 122, then the manufacturer access process ends at the step 124.

A flowchart illustrating the process used when a purchaser obtains a product and accesses the purchaser access system 14 to obtain information about that product and/or register with the manufacturer of the product, is illustrated in Figure 4. The purchaser access process starts at the step 200. At the step 202, it is determined if the purchaser is registered as
35 a member with the purchaser access system. If the purchaser is not yet registered as a member with the purchaser access system 14, then the purchaser is registered as a member at the step 204. At the step 206, the purchaser is prompted to enter their full name. At the step 208, the purchaser is prompted to enter their interest areas and what type of information they are

interested in receiving. At the step 210, the purchaser is prompted to enter their age. At the step 212, the purchaser is prompted to enter the geographic area in which they are located. At the step 214, the purchaser is prompted to enter their preferred method by which they would like to be contacted, regarding updates and changes in information relative to products for which they are registered. The purchaser can be contacted by any appropriate method including e-mail, conventional mail or through the purchaser access system 14. At the step 216, the purchaser then enters any product tag numbers for existing products that the purchaser currently owns.

Once the purchaser is registered as a member, it is then determined at the step 218, if the purchaser wants to view information about products for which they are currently registered. If it is determined that the purchaser does want to view information about products for which they are currently registered, then at the step 220, a list of products for which the purchaser is currently registered is displayed. At the step 222, the purchaser selects a product from the displayed list of products. At the step 224, the available information for the selected product is displayed for the purchaser. At the step 226, it is then determined if the purchaser would like to view information about any additional products for which they are currently registered. If it is determined that the purchaser does want to view information about additional products, then the system jumps back to the step 220 to display the list of products for which the purchaser is currently registered. Otherwise, the process then ends at the step 238.

If it is determined, at the step 218, that the purchaser does not want to view information about products for which they are currently registered, then at the step 228, it is determined if the purchaser wants to register a new product tag number with the product information controller 10. If it is determined that the purchaser does not want to register a new product tag number with the product information controller 10, then the process ends at the step 238. Otherwise, if it is determined at the step 228 that the purchaser does want to register a new product tag number with the product information controller 10, then the purchaser enters the new product tag number corresponding to a product at the step 230. At the step 232, the system adds the product corresponding to the entered product tag number to the list of products for which this purchaser is registered. At the step 234, the purchaser is added to the list of registered purchasers for the product corresponding to the entered product tag number. This list of registered purchasers is used when updated information is provided for a product and the registered purchasers are to be notified. At the step 236, the manufacturer of the product corresponding to the entered product tag number is informed that this purchaser has registered for the product. By informing the manufacturer, the manufacturer is aware that the purchaser has obtained the product and the warranty period can be enacted. The system then jumps to the step 218 to determine if the purchaser wants to view information about products for which they are currently registered.

The product tag of the preferred embodiment of the present invention is illustrated in Figure 5. The product tag 300 includes a unique product tag number 302, a manufacturer identification 304 and an internet address 306. The unique product tag number 302 is the number assigned to that product by the product entry system 20, when the manufacturer enters the product into the product entry system 20. As described above, the information available for this product is maintained to correspond to and to be accessed by the unique product tag number 302. The manufacturer identification 304 identifies the manufacturer of the product. The internet address 306 identifies the internet address at which the purchaser can obtain information about the product with the unique product tag number 302. The product tag 300 is permanently affixed to the product or information about the service to which it corresponds. Accordingly, in order to obtain information about the product, the purchaser of a product only needs to access the product information controller 10 over the internet and enter the unique product number found on the product tag affixed to the product. The purchaser is not required to keep up with or locate the user manual or other product information, as that information will be maintained and available through the information system 16 of the product information controller 10.

Once registered with the manufacturer access system 18, a manufacturer can enter new products and obtain product tag numbers for those products. The manufacturer can also post information relative to a product which has an associated product tag number, as well as obtain information on purchasers who have registered as owning the product. The manufacturer can also change or update information associated with a product and automatically notify registered purchasers of the product. This is particularly advantageous when it is necessary to notify owners of a product of such things as product recalls, upgrades and the like.

Once registered with the purchaser access system 14, purchasers of products can maintain and access information regarding products which they own, which have an associated product tag number. The registered purchaser can also be automatically informed of changes or updates to information about a product for which they are registered. This can include reminding the purchaser about the expiration of warranties or service contracts, the need to schedule routine maintenance, or notifying the registered purchaser of product recalls, upgrades and the like. Through the purchaser access system 14, the register purchaser can also maintain an inventory of registered products which they own.

The present invention has been described in terms of specific embodiments incorporating details to facilitate the understanding of principles of construction and operation of the invention. Such reference herein to specific embodiments and details thereof is not intended to limit the scope of the claims appended hereto. It will be apparent to those skilled in the art that modifications may be made in the embodiment chosen for illustration without departing from the spirit and scope of the invention. Specifically, it will be apparent to those

skilled in the art that while the preferred embodiment of the present invention is accessible over the internet through the public switched telephone network, the present invention could also be accessible on any other appropriate communication structures, including intranets, direct connections and the like.

C L A I M S

I Claim:

- 1 1. A method of obtaining information about a product comprising:
 - 2 a. obtaining a product number from a product number tag associated with the
 - 3 product;
 - 4 b. entering the product number into an information system, wherein the
 - 5 information system maintains information corresponding to the product by the
 - 6 product number; and
 - c. obtaining the information from the information system.
- 1 2. The method as claimed in claim 1 further comprising registering the product
- 2 with a product entry system to obtain the product number.
- 1 3. The method as claimed in claim 2 further comprising affixing the product
- 2 number to the product.
- 1 4. The method as claimed in claim 2 wherein each type of product is assigned a
- 2 unique product number.
- 1 5. The method as claimed in claim 1 wherein the information is selected from the
- 2 group of user manual, warranty information, information about repairs of the product,
- 3 information about replacement parts for the product, information about upgrades of the
- 4 product, information about recalls of the product, information about sale and availability of
- 5 associated products and information about routine maintenance of the product.
- 1 6. The method as claimed in claim 1 wherein the product number tag includes the
- 2 product number, information about a manufacturer of the product and an address of the
- 3 information system.
- 1 7. The method as claimed in claim 6 wherein the information system includes a
- 2 server on which the information is maintained.
- 1 8. The method as claimed in claim 7 further comprising establishing an internet
- 2 connection with the server to enter the product number and to obtain the information from the
- 3 information system.

1 9. The method as claimed in claim 1 further comprising notifying users who have
2 entered the product number into the information system about updates to the information.

1 10. A method of maintaining a list of registered purchasers of a product and
2 providing information corresponding to a product comprising:
3 a. entering a product into a product entry system to obtain a product number;
4 b. affixing the product number to the product;
5 c. maintaining information corresponding to the product within an information
6 system indexed by the product number; and
7 d. providing the information to purchasers of the product who enter the product
8 number into the information system.

1 11. The method as claimed in claim 10 wherein each type of product is assigned a
2 unique product number.

1 12. The method as claimed in claim 10 wherein the information is selected from
2 the group of user manual, warranty information, information about repairs of the product,
3 information about replacement parts for the product, information about upgrades of the
4 product, information about recalls of the product, information about sale and availability of
5 associated products and information about routine maintenance of the product.

1 13. The method as claimed in claim 10 wherein the product number is affixed to
2 the product by a product number tag.

1 14. The method as claimed in claim 13 wherein the product number tag includes
2 the product number, information about the manufacturer and an address of the information
3 system.

1 15. The method as claimed in claim 10 wherein the information system includes a
2 server on which the information is maintained.

1 16. The method as claimed in claim 15 further comprising establishing an internet
2 connection with the server to enter the product number and to obtain the information from the
3 information system.

1 17. The method as claimed in claim 10 further comprising registering purchasers of
2 the product with the information system, thereby forming registered purchasers.

- 1 18. The method as claimed in claim 17 further comprising notifying the registered
2 purchasers about updates to the information.
- 1 19. A product information system comprising:
2 a. means for interfacing with a user;
3 b. means for maintaining information about a product, wherein the information is
4 maintained in correspondence to a product number which is associated with the
5 product; and
6 c. means for providing coupled to the means for interfacing and to the means for
7 maintaining for providing the information to the user when the user enters the
8 product number.
- 1 20. The product information system as claimed in claim 19 wherein a manufacturer
2 of the product registers the product with the means for maintaining information about the
3 product to obtain the product number.
- 1 21. The product information system as claimed in claim 20 further comprising a
2 product tag affixed to the product which includes the product number.
- 1 22. The product information system as claimed in claim 21 wherein each type of
2 product is assigned a unique product number.
- 1 23. The product information system as claimed in claim 19 wherein the
2 information is selected from the group of user manual, warranty information, information
3 about repairs of the product, information about replacement parts for the product, information
4 about upgrades of the product, information about recalls of the product, information about
5 sales and availability of associated products and information about routine maintenance of the
6 product.
- 1 24. The product information system as claimed in claim 21 wherein the product tag
2 further includes information about the manufacturer and an address by which the means for
3 maintaining information is accessed.
- 1 25. The product information system as claimed in claim 19 wherein the means for
2 maintaining information is included within a server.

- 1 26. The product information system as claimed in claim 25 wherein a connection is
2 established with the server by a computer system to access the information from the means for
3 maintaining information.
- 1 27. The product information system as claimed in claim 26 wherein the connection
2 is established between the computer system and the server over the internet.
- 1 28. The product information system as claimed in claim 19 wherein the user
2 registers with the means for providing by entering the product number and further wherein the
3 means for providing automatically notifies registered users of updates to the information.
- 1 29. A product information system comprising:
2 a. an interface circuit configured to establish a connection with a remote
3 computer system; and
4 b. an information system coupled to the interface circuit for maintaining
5 information about a product in correspondence to a product number which is
6 associated with the product and providing the information to the remote
7 computer system if the product number is entered by the remote computer
8 system.
- 1 30. The product information system as claimed in claim 29 wherein a manufacturer
2 of the product registers the product with the information system and provides the information
3 to the information system to obtain the product number.
- 1 31. The product information system as claimed in claim 30 further comprising a
2 product tag affixed to the product which includes the product number.
- 1 32. The product information system as claimed in claim 31 wherein each type of
2 product is assigned a unique product number.
- 1 33. The product information system as claimed in claim 29 wherein the
2 information is selected from the group of user manual, warranty information, information
3 about repairs of the product, information about replacement parts for the product, information
4 about upgrades of the product, information about recalls of the product, information about
5 sales and availability of associated products and information about routine maintenance of the
6 product.

1 34. The product information system as claimed in claim 31 wherein the product tag
2 further includes information about the manufacturer and an address by which the information
3 system is accessed.

1 35. The product information system as claimed in claim 29 wherein the
2 information system is included within a server.

1 36. The product information system as claimed in claim 35 wherein the connection
2 is established with the server by the remote computer system through the interface circuit.

1 37. The product information system as claimed in claim 36 wherein the connection
2 is established between the server and the remote computer over the internet.

1 38. The product information system as claimed in claim 29 wherein a user of the
2 remote computer system registers with the information system by entering the product number
3 and further wherein the information system automatically notifies registered users of updates
4 to the information.

1 39. A network of devices for maintaining and obtaining information about a
2 product comprising:
3 a. one or more computer systems configured to communicate with other systems;
4 and
5 b. a product information server configured to couple to the one or more computer
6 systems for obtaining, maintaining and providing information about a product
7 in correspondence to a product number which is associated with the product,
8 wherein the information is provided to a particular one of the one or more
9 computer systems if the product number is entered by the particular one of the
10 computer systems.

1 40. The network of devices as claimed in claim 39 wherein a manufacturer
2 registers the product with the product information server and provides the information to the
3 product information server to obtain the product number.

1 41. The network of devices as claimed in claim 40 further comprising a product tag
2 affixed to the product which includes the product number.

1 42. The network of devices as claimed in claim 41 wherein each type of product is
2 assigned a unique product number.

1 43. The network of devices as claimed in claim 41 wherein the product tag further
2 includes information about the manufacturer and an address by which the product information
3 server is accessed.

1 44. The network of devices as claimed in claim 39 wherein the information is
2 selected from the group of user manual, warranty information, information about repairs of the
3 product, information about replacement parts for the product, information about upgrades of
4 the product, information about recalls of the product, information about sales and availability
5 of associated products and information about routine maintenance of the product.

1 45. The network of devices as claimed in claim 39 wherein the one or more
2 computer systems are coupled to the server over the internet.

1 46. The network of devices as claimed in claim 39 wherein a user of the particular
2 one of the computer systems registers with the product information server by entering the
3 product number and further wherein the product information server automatically notifies
4 registered users of updates to the information.

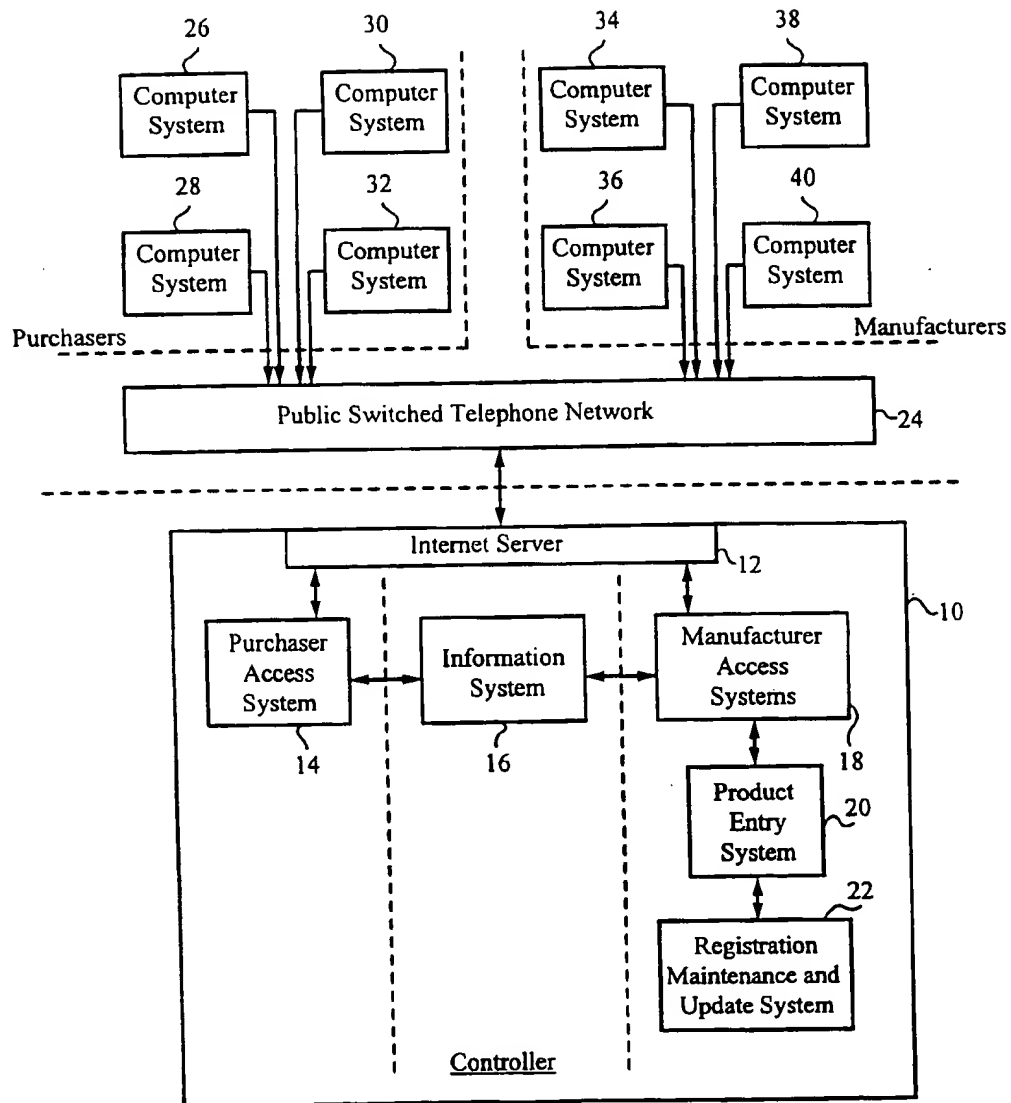
1 47. A product tag for affixing to a product comprising:
2 a. a product number by which the product is identified; and
3 b. an address of a product information server from which information about the
4 product is provided to users who enter the product number.

1 48. The product tag as claimed in claim 47 further comprising information about a
2 manufacturer of the product.

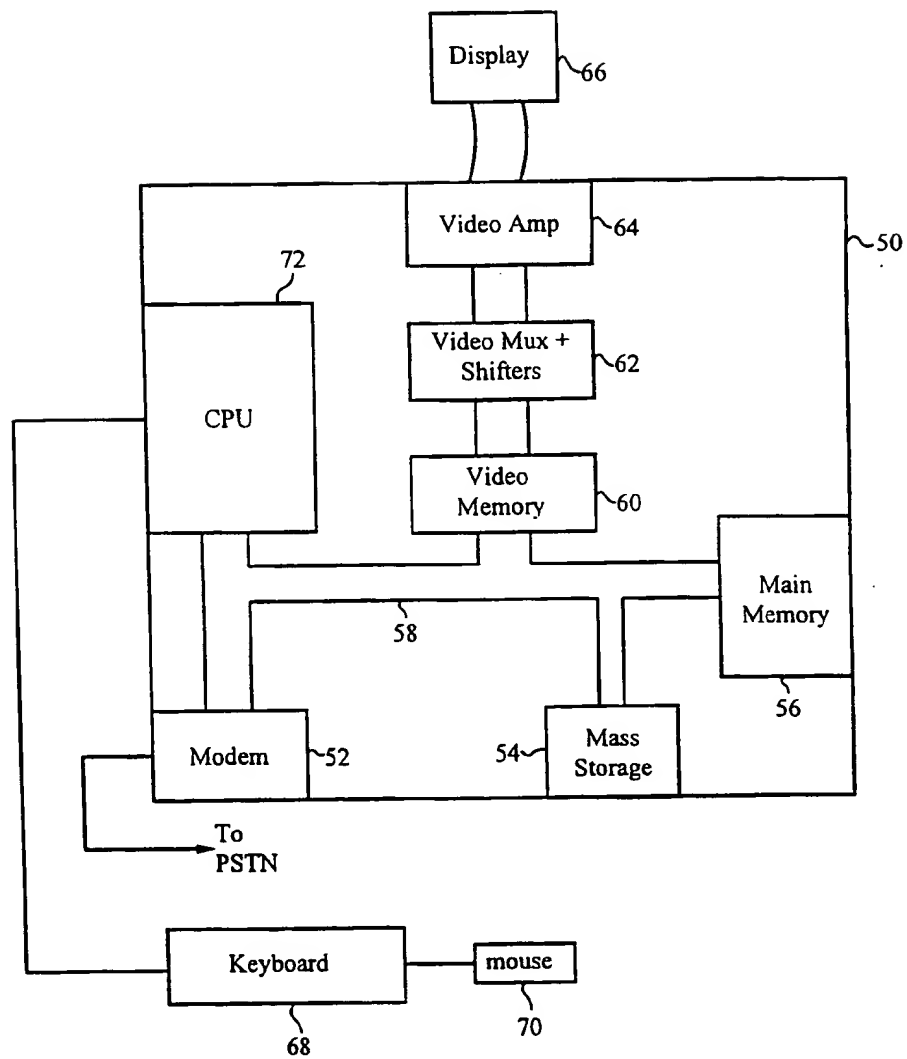
1 49. The product tag as claimed in claim 47 wherein a user registers with the
2 product information server by entering the product number and further wherein the product
3 information server automatically notifies registered users of updates to the information.

1 50. The product tag as claimed in claim 49 wherein the information is selected
2 from the group of user manual, warranty information, information about repairs of the
3 product, information about replacement parts for the product, information about upgrades of
4 the product, information about recalls of the product, information about sales and availability
5 of associated products and information about routine maintenance of the product.

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*Fig. 1*

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*Fig. 2*

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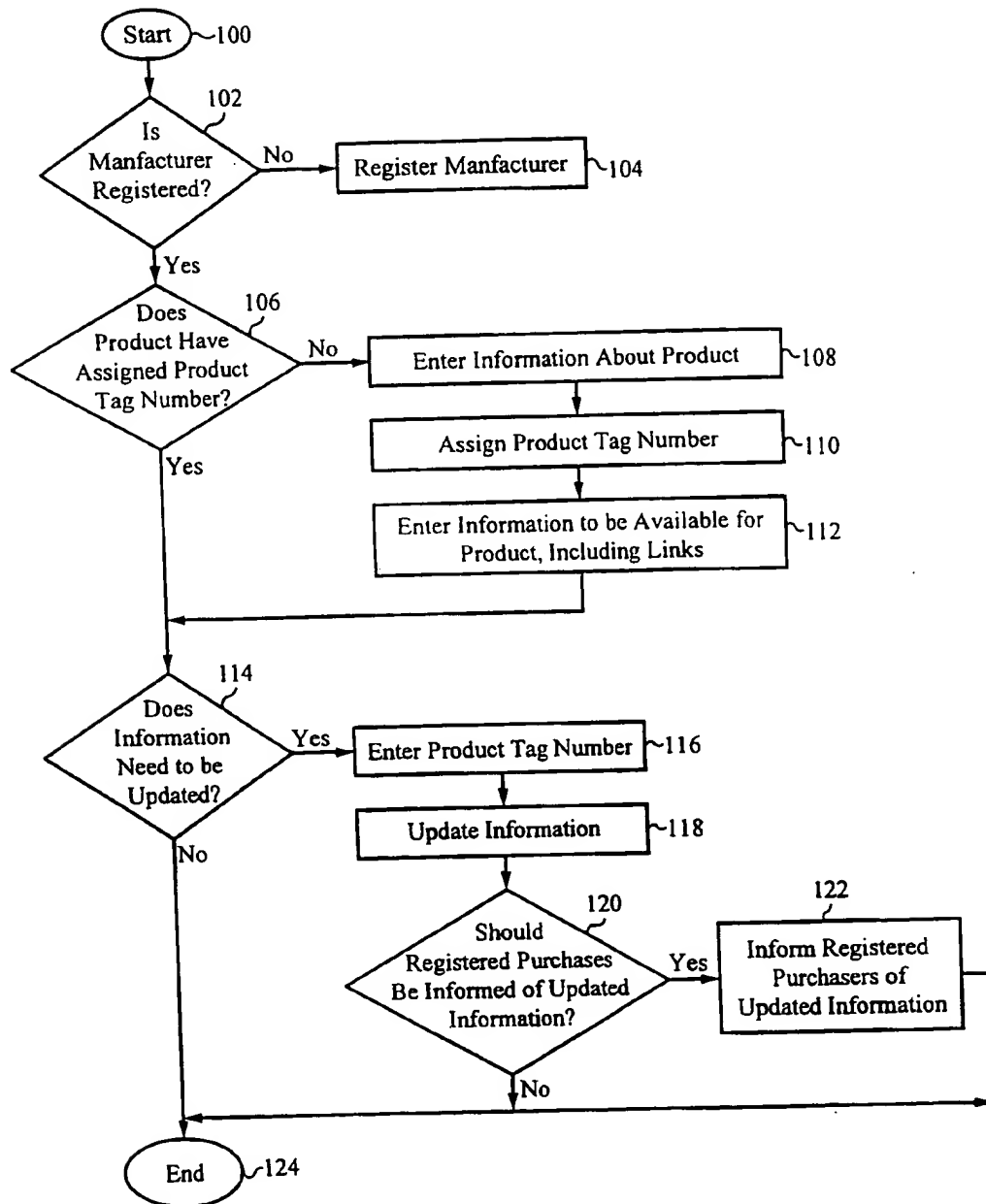


Fig. 3

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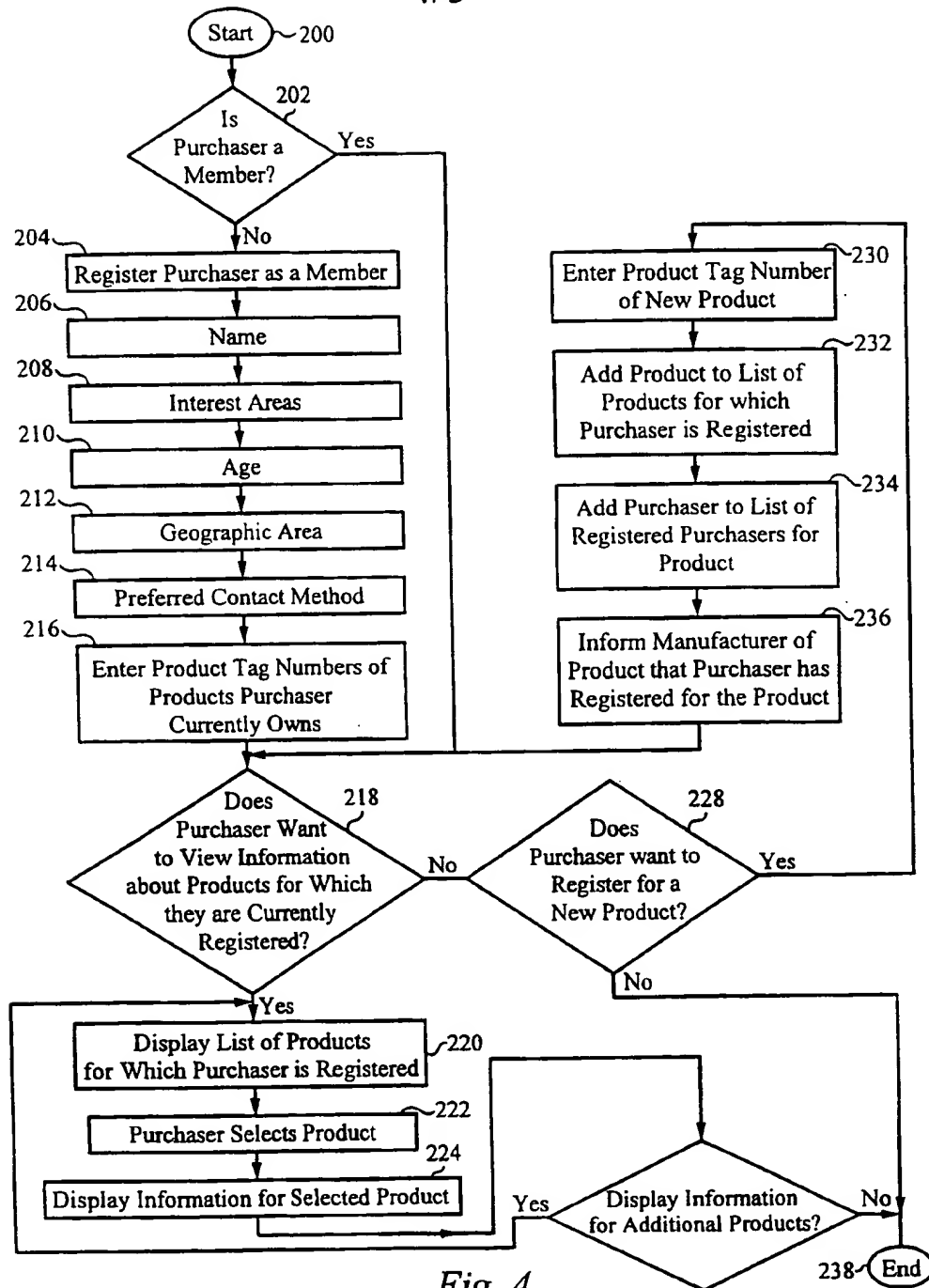
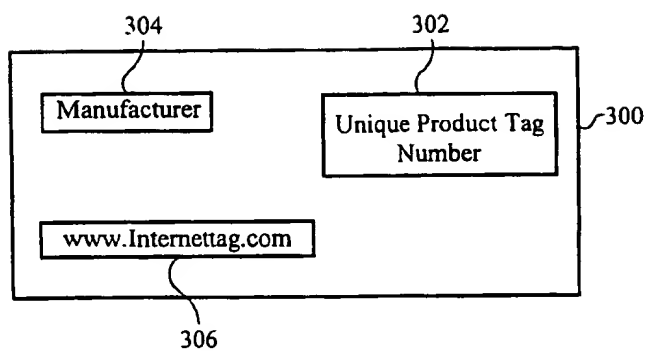


Fig. 4

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*Fig. 5*

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US00/22250

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/28

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/28

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST. DIALOG. IEEE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5,774,876 A (WOOLLEY ET AL) 30 JUNE 1998, Title, Abstract, Fig. 10, col 53, lines 30-35, col 54, lines 66-67 continue col 55, lines 1-6, col 56, lines 46-59, col 57, lines 9-16 and 31-57, col 58, lines 44-57 and col 59, line 53 through col 60, line 6.	1-50

☐ Further documents are listed in the continuation of Box C.
 ☐ See patent family annex.

* Special categories of cited documents:	*T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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O document referring to an oral disclosure, use, exhibition or other means	
P document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

13 OCTOBER 2000

Date of mailing of the international search report

14 NOV 2000

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